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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/461,211	12/15/1999	Hiroyasu Koizumi	018889/0156	3525

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EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 02/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/461,211

Applicant(s)

Koizumi et al.

Examiner

A. K. Hanson

Group Art Unit

3143

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 12/6/01 & 9/24/01.
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-2 and 4-21 is/are pending in the application.
- Of the above claim(s) 9, 12, 14 & 19-20 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-2, 4-8, 10-11, 13, 15-18 and 21 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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Response to Restriction

Applicant's election of the Group I invention and species A as illustrated in Figures 3-4C in Paper No. 19 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 9, 12, 14 and 19-20 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

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Claims 1-2, 4, 13, 15, 18 and 21 are rejected under 35 U.S.C. § 103 as being unpatentable over Ikagawa ('596) in view of Kato ('198). The document of Ikagawa discloses all the claimed features of the invention with the exception of the reinforcement hole having arch sections in a thickness direction.

The patent of Kato ('198) in Figures 1-2 and 5 discloses that it is known to have the reinforcement hole having arch sections in a thickness direction for the purpose of matching the corresponding reinforcement member. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Ikagawa ('596) have the reinforcement hole having arch sections in a thickness direction for the purpose of matching the corresponding reinforcement member as disclosed in Kato ('198). The claimed angle and dimensions are considered to be obvious design expedients in view of the angle and dimensions illustrated in Ikagawa which do not solve any stated problem or produce any new and/or unexpected result.

Claims 5-8, 10-11 and 16-17 are rejected under 35 U.S.C. § 103 as being unpatentable over Ikagawa ('596) in view of Kato ('198) as applied to claims 1-2, 4, 13, 15, 18 and 21 above, and further in view of Hooton ('751) and Matsuura ('819). The document of Ikagawa ('596) discloses all the claimed features of the invention with the exception of the claimed dimensions.

The document of Hooton ('751) in figure 3 discloses that it is known to have the tubes being smaller than the fins in the width direction for the purpose of enhancing the heat transfer area of the heat exchanger. It would have been obvious at the time the invention was made to a

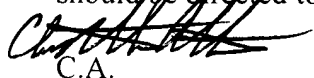
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person having ordinary skill in the art to employ in Ikagawa ('596) as modified, the tubes being smaller than the fins in the width direction for the purpose of enhancing the heat transfer area of the heat exchanger as disclosed in Hooton ('751).

The patent of Matsuura ('819) in figure 20 discloses that it is known to have the width of the reinforcement member smaller than the width of the fin for the purpose of decreasing the cost and weight of the heat exchanger. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Ikagawa ('596) as modified, the width of the reinforcement member smaller than the width of the fin for the purpose of decreasing the cost and weight of the heat exchanger as disclosed in Matsuura ('819). The claimed angle and dimensions are considered to be obvious design expedients in view of the angle and dimensions illustrated in Ikagawa which do not solve any stated problem or produce any new and/or unexpected result.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.


C.A.

February 25, 2002

CHRISTOPHER ATKINSON
PRIMARY EXAMINER